

Title (en)

FROSTING AGENT FOR WATER-BASED POLYURETHANE AND PRODUCTION THEREOF.

Title (de)

MATTIERUNGSMITTEL FÜR POLYURETHANE AUF WASSERBASIS SOWIE DESSEN HERSTELLUNG.

Title (fr)

AGENT DE MATAGE POUR POLYURETHANE A BASE D'EAU, ET PRODUCTION DE CET AGENT.

Publication

**EP 0513368 B1 19950125 (EN)**

Application

**EP 91919164 A 19911101**

Priority

- JP 9101522 W 19911101
- JP 33474190 A 19901129

Abstract (en)

[origin: EP0513368A1] A frosting agent wherein particulate silica can be suspended with good dispersibility without lowering the castability and moldability of water-based polyurethane used as a binder for mat coating compound. It is produced by compounding 100 parts by weight of particulate silica with 0.5 to 30 parts by weight of gamma -ureidopropylethoxysilane and at least 0.1 part by weight of water, and causing a reaction at 15 to 100 DEG C to modify the surface of the silica. The reaction causes the hydrolysis of the ethoxysilane group to liberate a gamma -ureidopropylsilanol group, which reacts with acidic hydroxyl groups present on the silica surface to enhance the wettability and compatibility of the frosting agent with the polyurethane, thereby improving the dispersibility of the silica and the scuffing resistance of the obtained coating film.

IPC 1-7

**C09D 175/04**; C09D 5/00; C08K 3/36; C08K 9/06; B65D 23/08

IPC 8 full level

**C01B 33/18** (2006.01); **C08K 9/06** (2006.01); **C09D 5/00** (2006.01); **C09D 175/04** (2006.01)

CPC (source: EP US)

**C08K 9/06** (2013.01 - EP US); **C09D 175/04** (2013.01 - EP US); **Y10T 428/2995** (2015.01 - EP US); **Y10T 428/2996** (2015.01 - EP US); **Y10T 428/2998** (2015.01 - EP US); **Y10T 428/31663** (2015.04 - EP US)

Citation (examination)

- EP 0298764 A2 19890111 - BRIDGESTONE CORP [JP]
- JP H0684365 A 19940325 - MATSUSHITA ELECTRIC IND CO LTD
- JP S5874541 A 19830506 - DAINIPPON TORYO KK
- Lehrbuch der Lacke und Beschichtungen, Band II, Verlag W.A. Colomb in der H. Heenemann GmbH, Berlin 1974, pages 318-329

Cited by

EP0679700A3; US5719206A

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